Lowell Regional Wastewater Utility

Downstream Notification Report
NPDES Permit No: MA0100633

Date of Bypass/CSO Event:
Sat, Jan 13, 2018

Kevin Brander, Massachusetts DEP
Nihar Mohanty, Massachusetts DEP
Jeff Kennedy, Mass Division of Marine Fisheries
Doug Koopman, United States EPA
Todd Borci, United States EPA
Aaron Fox, Lowell Regional Wastewater Utility
Mark Young, Lowell Regional Wastewater Utility
Tom Kawa, Lowell Regional Wastewater Utility
Mike Stuer, Lowell Regional Wastewater Utility
Rick Toohey, Lowell Regional Wastewater Utility
James McSurdy, Andover Water Treatment Plant
Dan DiNicola, Lawrence Water Department
Thomas Lannan, Methuen Water Treatment Plant
Lewis Zediana, Tewksbury Water Treatment Plant

Dear Plant Managers, Environmental Professionals, and Fellow LRWWU Employees:

This report describes untreated and/or partially treated wastewater discharges from the Lowell Regional Wastewater Utility (LRWWU) wastewater treatment plant and its associated Combined Sewer Overflow (CSO) diversion structures. Secondary treatment bypass refers to wastewater that enters the treatment plant, receives primary treatment, is blended with secondary effluent, disinfected, and then discharged to the Merrimack River. CSO diversions, which occur prior to the treatment plant at the CSO structures, are raw (untreated) discharges directly to nearby receiving waters. Bypass and diversion events are implemented when the capacity of the collection system and/or the treatment plant are exceeded. This is typically the result of heavy rain, but can also be neccessary during times of excessive snow melt and/or ground water infiltration into the collection system.

Primary Influent Flow		
Daily Flow Rate (MGD)	Peak Hourly Flow Rate (MGD)	Instantaneous Peak Flow Rate (MGD)
59.75	99.71	101.56

Precipitation Duck Island WWTF			
Daily Total (in)	Duration Total (hr)	Average Intensity (in/hr)	Peak Intensity (in/hr)
0.24	7	0.03	0.07

Secondary Bypass	
Duration (Minutes)	Volume (MG)
1,026	27.51

CSO Diversion Totals	
Aggregate Duration (Minutes)	Volume (MG)
11	0.14

Person Reporting Event: Greg Coyle - LRWWU Engineer

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Secondary Bypass			
Time	Duration (Minutes)	Volume (MG)	Duck Island Rain (in)
01:00	60	2.76	0.04
02:00	60	2.69	0.02
03:00	60	2.45	0.05
04:00	60	2.33	0.03
05:00	60	2.49	0.02
06:00	60	2.45	0.07
07:00	60	2.49	
08:00	60	2.49	
09:00	45	2.14	
10:00	60	1.23	0.01
11:00	60	1.01	
12:00	60	0.80	
13:00	60	0.67	
14:00	60	0.55	
15:00	60	0.43	
16:00	60	0.31	
17:00	60	0.18	
18:00	21	0.04	
19:00			
20:00			
21:00			
22:00			
23:00			
24:00			

Barasford Station To Merrimack River Diversion		
Time	Duration (Minutes)	Volume (MG)
01:00		
02:00		
03:00		
04:00		
05:00		
06:00		
07:00		
08:00		
09:00		
10:00		
11:00		
12:00		
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17:00		
18:00		
19:00		
20:00		
21:00		
22:00		
23:00		
24:00		

Beaver Brook Station To Beaver Brook Diversion		
Time	Duration (Minutes)	Volume (MG)
01:00		
02:00		
03:00		
04:00		
05:00		
06:00		
07:00		
08:00		
09:00		
10:00		
11:00		
12:00		
13:00		
14:00		
15:00		
16:00		
17:00		
18:00		
19:00		
20:00		
21:00		
22:00		
23:00		
24:00		

Secondary Bypass			
24 Hour	Total Duration (Minutes)	Total Volume (MG)	Total Rainfall (in)
	1,026	27.51	0.24

Barasford Station To Merrimack River		
24 Hour	Total Duration (Minutes)	Total Volume (MG)
	0	

Beaver Brook Station To Beaver Brook		
24 Hour	Total Duration (Minutes)	Total Volume (MG)
	0	

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Merrimack Station To Merrimack River Diversion		
Time	Duration (Minutes)	Volume (MG)
01:00	11	0.14
02:00		
03:00		
04:00		
05:00		
06:00		
07:00		
08:00		
09:00		
10:00		
11:00		
12:00		
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18:00		
19:00		
20:00		
21:00		
22:00		
23:00		
24:00		

Tilden Station To Merrimack River Diversion		
Time	Duration (Minutes)	Volume (MG)
01:00		
02:00		
03:00		
04:00		
05:00		
06:00		
07:00		
08:00		
09:00		
10:00		
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18:00		
19:00		
20:00		
21:00		
22:00		
23:00		
24:00		

Walker Station To Merrimack River Diversion		
Time	Duration (Minutes)	Volume (MG)
01:00		
02:00		
03:00		
04:00		
05:00		
06:00		
07:00		
08:00		
09:00		
10:00		
11:00		
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16:00		
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19:00		
20:00		
21:00		
22:00		
23:00		
24:00		

Merrimack Station To Merrimack River		
24 Hour	Total Duration (Minutes)	Total Volume (MG)
	11	0.14

Tilden Station To Merrimack River		
24 Hour	Total Duration (Minutes)	Total Volume (MG)
	0	

Walker Station To Merrimack River		
24 Hour	Total Duration (Minutes)	Total Volume (MG)
	0	

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Warren Station To Concord River Diversion		
Time	Duration (Minutes)	Volume (MG)
01:00		
02:00		
03:00		
04:00		
05:00		
06:00		
07:00		
08:00		
09:00		
10:00		
11:00		
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18:00		
19:00		
20:00		
21:00		
22:00		
23:00		
24:00		

West Station To Merrimack River Diversion		
Time	Duration (Minutes)	Volume (MG)
01:00		
02:00		
03:00		
04:00		
05:00		
06:00		
07:00		
08:00		
09:00		
10:00		
11:00		
12:00		
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16:00		
17:00		
18:00		
19:00		
20:00		
21:00		
22:00		
23:00		
24:00		

Read Station To Merrimack River Diversion		
Time	Duration (Minutes)	Volume (MG)
01:00		
02:00		
03:00		
04:00		
05:00		
06:00		
07:00		
08:00		
09:00		
10:00		
11:00		
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16:00		
17:00		
18:00		
19:00		
20:00		
21:00		
22:00		
23:00		
24:00		

Warren Station To Concord River		
24 Hour	Total Duration (Minutes)	Total Volume (MG)
	0	

West Station To Merrimack River		
24 Hour	Total Duration (Minutes)	Total Volume (MG)
	0	

Read Station To Merrimack River		
24 Hour	Total Duration (Minutes)	Total Volume (MG)
	0	